

The Birmingham Hardware Trade.

I. The Minor Metal Industries in general

II. The Merchandising of Hardware.



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THE MINOR METAL INDUSTRIES.

In nearly every branch of commercial activity there is a broad distinction between the functions of production and distribution - manufacturers produce the goods and merchants distribute them. In a few cases a manufacturer may deal directly with the consumer, but such dealings do, in effect, create the necessity for a special department. In dealing with the minor metal trades I propose to follow the same distinction. In the first part of this paper I shall describe some of the chief characteristics of the manufacture of certain hardware goods, and in the second I shall deal with the business of a merchant in this class of commodities.

My information on the manufacturing side has been derived from various sources, chief among them being:

- (1) Census of production figures for 1907.
- (2) Consular reports of Germany and the United States-1910.
- (3) American Industrial Conditions and Competition -
Report of Commissioners of British Iron Trades Assoc.
- (4) Women's Work and Wages - by Miss Matherson & others.
- (5) Methods of Industrial Remuneration - by Schloss.
- (6) Mosely Commission on Labour in the United States -
Report of year 1902.
- (7) The Economist.

I have also obtained a considerable amount of information from various articles appearing in the 'Ironmonger and Metal Trades Advertiser'; and, as my father's business is that of an export hardware merchant, I have been able to get certain information first-hand.

The term 'hardware' is used in the trade to mean all commodities made of hard substances, such as metal, wood, & glass, the American distinction between soft and hard goods being implied. Under hardware is included everything from a pin to a steamroller, from a dining-table to a flower vase. The class of hardware to which I wish here to devote myself is that of the small finished articles made from the metals iron, copper, tin, and brass -

those articles of common domestic use which are to be found in any ironmonger's store.

Naturally the manufacture of the articles comprised in even this limited class involves the employment of several widely different methods: chains are often forged by hand, door knobs are generally cast, metal trays are stamped, wire is drawn, screws are cut by automatic machinery, and knife blades may be machine- or hand-forged. Some of these processes have to be carried on by skilled craftsmen, while others are executed almost wholly by machinery.

As the class of commodities with which I am dealing is only separated from other kinds of hardware by an arbitrary division, it is somewhat difficult to point out special characteristics or distinguishing features of this branch of industry. But there are a few facts which, in that they apply more generally and closely to the minor metal industries, are perhaps worthy of notice.

Firstly, the manufactured products almost all contain a relatively high value in a small bulk, the chief agent in their production being in some cases highly skilled labour, and in others light machinery. It follows that the amount of raw material involved is fairly small, and therefore manufacturers can carry on successful businesses although their works may not be in close proximity to the sources from which they draw their material. A Birmingham manufacturer of cake-tins need not shut up shop because he has to pay the carriage from South Wales on his tin plate. On the other hand the smaller hardware goods for export can more easily bear a high railway rate than can the big steel castings used in heavy engineering. This fact accounts for the permanent position of the Midlands as the centre of the minor metal trades, and for the removal from this district of firms manufacturing heavier kinds of hardware.

Secondly, fashion plays a large part in these trades. The articles have to meet the tastes and fulfil the requirements of the general public. Patterns have to be continually changed and the demand attracted by the introduction of numerous novelties.

It is not enough to go on turning out gross after gross of the same article. The public can do without many of the articles, and they will do without them unless fresh interest is roused.

A manufacturer of small hardware must not be a specialist. He must always be ready to adopt fresh ideas and to teach his workpeople new methods. It follows that it will not often be advisable for him to install expensive machinery: the small adaptable tool of a less durable nature suits him better.

As the articles have to appeal to the tastes of the general public the work must have the personal supervision of an interested and well-informed manager. The absence in this branch of commercial activity of large public companies is not to be wondered at.

Thirdly, a characteristic of these trades is their almost total lack of strong trade unionism. A trade union can only be formed and maintained when the workers are employed in large numbers in fairly similar operations and concentrated in a small district. Such cases are comparatively rare in the minor metal industries. The manufacturing processes in these trades are of a widely differing character, and the number employed in any particular process in any one district is very small. There are few very big businesses in this line of manufacture, and even where a trade union is able to include all the men in any big works it has no power to control the hundreds who work in a host of smaller concerns.

The division of labour and the increasing use of machine tools has led to the employment of a greater number of women in many of the minor metal trades, and this, in turn, has prevented the growth of a really strong trade union influence. Female workers are always ready to accept lower wages than men: they are content with a lower standard of living. Indeed, one of the disadvantages which employers attribute to female labour is that the workers show too little ambition to get on and improve their position. Thus it is that women are unable to appreciate the main purpose of a trade union. A large proportion of women in an industry serves to minimise the element of labour disputes, but it also

certainly tends towards the payment of a lower standard wage, because the women do not care to pursue a trade union policy. On the other hand there is the consideration that, in a trade where many women are employed, the men may be compelled to forego a fighting policy for fear that they might lose their employment in favour of more female workers.

There is no doubt that the existence in a trade of a strong union makes for higher wages and better labour conditions. A few weeks ago a meeting was held at Redditch of workers in the cycle, needle, and fish-hook trades of the district. Mr. Davis, the secretary of the union of brassworkers, stated that the wages of engineers, polishers, and carpenters were 30% higher than those of needle-scourers, although the work of this last class was quite as highly skilled. He attributed the difference in wages to the fact that the needle-scourers were not organised in a trade union.

Geographical distribution:

It may be as well to mention the chief towns in the United Kingdom engaged in the minor metal trades. The industrial centres on the coast are almost wholly given up to ship-building and other heavy engineering trades, and it is in inland towns that the lesser manufactures are carried on. This district of the Midlands, or rather that part of it known as the Black Country, is one of the largest centres of the small hardware industries in the world. Holloware, that is cast and galvanised iron pots, tools, tinware, nails, screws, brass fittings for doors and windows, carriage lamps, etc. are all important industries in Birmingham. Of other towns in the neighbourhood Wolverhampton, West Bromwich, and Dudley are well known for the manufacture of cast iron holloware, and Willenhall is the centre of the lock industry. Other Black Country towns make chains and hand-made nails. Glasgow and Falkirk do a large trade in heavy iron pots and tanks, while Warrington and Norwich make a great deal of wire. Ipswich has several large factories for agricultural implements, and Sheffield is, of course, world-famed for the manufacture of cutlery.

and light-edged tools of every kind.

The three chief districts are:

- (1) The Black Country.
- (2) The district of Sheffield and Rotherham.
- (3) Glasgow and Falkirk.

Labour and Wages:

The study in detail of all the minor metal industries is, of course, far too big a task for me to undertake within the limits of this paper, but I wish to draw special attention to the questions of labour and wages in so far as they affect the trades under consideration. The following table has been compiled from the Board of Trade's Census of Production figures for the United Kingdom in 1907. I have arranged the different trades in order of their gross output, calculated at the selling price of the total production. From the gross output in each case has been deducted the total cost of the materials, and the resulting net output has been divided by the number of workpeople employed in each branch respectively.

The minor metal trades:-

Board of Trade-1907

Wages- 1906

Trade	Gross Value	Value per Head	Female labour	Wages
Holloware,				M. 33-10
Light castings,	15,191,000	88	24%	W. 13
Bedsteads.				All 26-7
Lead, Tin,				M.
& Zinc Wks.	9,002,000	138	13%	W.
				All
Wire	6,519,000	118	10%	M.
				W.
				All
Finished Brass.	6,315,000	86	19%	M. 31-9
				W. 12
				All 20-10
Nail, Screw, & Nut.	5,634,000	83	40%	M. 31
				W. 11-2
				All 18
Edge Tools & Implements.	3,665,000	87	10%	M. 31-2
				W. 11-7
				All 24-11

output in each case has been deducted the total cost of materials, and the resulting net output has been divided by the number of workpeople employed in each branch respectively. The results are interesting and show the average amount of value added by each worker to the raw material in the year 1907. As the second column shows, the highest net value per head is found in the case of ^{lead, tin, & zinc works} casting and rolling Copper and Brass, and the lowest in the needle and pin trade. By way of comparison I have worked out in each case the proportion of female labour to the total amount of labour employed, and the evidence shows the general decrease in the net value per head as the proportion of female labour increases. This, I consider,

is one of the most interesting points to study - the relations existing between wages and labour in these ~~many~~ different industries. I do not say that the wages are always paid in strict proportion to the real value per head of the labour, ~~in each industry~~ but, as the table shows, the figure is a fair index of the general standard of wages in each industry.

I shall have occasion to refer to this table again when dealing with the wages more in detail.

It can hardly be said I think that there is any very decided tendency towards the more general employment of women in factories. All the industrial female labour in the ^{Metal & Engineering trade} United Kingdom amounts only to

4% of the total labour ^{in those industries} ~~of the country~~;
but the manufacture of hardware
carried on on modern lines has
offered great scope for the employment
of women in certain branches. Owing
largely to the introduction of mechanical
processes women have to a considerable
extent taken the place of men in
the following industries: chain making,
enamel saucepan making, tinplate
industry, press stamping, and
brass-caster's core making. In
other trades women execute only
the subsidiary operations of soldering,
brushing, polishing, lacquering,
and carding. Certain trades unions
however will not allow the polishing
to be done by women.

Although it is generally the case
that the heavier work in a factory is

done by men, yet personal investigation in the Birmingham brass industries has showed me that this is not always the case. Rough and dirty work is occasionally done by women. As an example of heavy work being done by women I may instance the case of a woman at work stamping brass articles who, with her foot is a stump, raised by physical strength the weight which supplied the motive power for each blow of the press. The rough, dirty work of dipping articles for enamelling is another case of work often done by women which is far more suitable for men.

The enquiries made personally by Miss Matheson and others among the female workers of Birmingham

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have shown that the wages paid are often very low. It is common knowledge that women are paid much smaller wages than men, but it may not be known to all of you that in trades so characteristic of Birmingham as those making plated wares, hinges, pens, and lamps, the wages of ~~girls~~^{women} vary from six to fifteen shillings a week and those of girls from four & sixpence to fourteen & sixpence. Only in the lamp trade can a skilled woman earn over a pound a week. Probably nearly one-tenth of the female population of Birmingham is being paid at these low rates.

That women should have to work for such low wages is bad enough, but there is another bad feature. It has been repeatedly

found that the employment of a considerable proportion of women in an industry lowers to some extent the wages of the men. The men have to make greater sacrifices to retain their places.

The Board of Trade has just published a report on the wages in the metal and engineering trades, but, unfortunately, the figures are five years old. The one striking feature is the general high standard of wages, only $7\frac{1}{2}\%$ of the men getting less than a pound, while 22% earn over two pounds. About 15,000 women are employed in these trades and half of them get from 11-15/- a week. Hardly any women earn as much as 30/-. But in certain trades where women

as shown by my table, are in a large proportion the wages are less satisfactory. In the needle and fishhook industry, where more than half the labour is female, the average male wage is $17\frac{3}{6}$; in the nail and screw business the average is $18\frac{1}{6}$; while in the lock industry it is $18\frac{2}{9}$. The lowest average pay for female labour is $9\frac{1}{6}$ a week and is found in chain and anchor making, and in the lock trade. Wire drawing is fairly well paid, but the wages are lower in the brass trades where a greater proportion of the labour is female. In the edge tool trade the wages are low. Over 80% of the women get less than 15/- and 28% of the men earn less than

25/ No doubt a considerable improvement in wages could be made in many cases by a strong trade union influence, but the variety of the manufacturing processes, the large number and small size of the shops, and the large proportion of female labour all tend to counteract the growth of a strong trade union.

Recently a number of articles have appeared in trade journals and newspapers commenting upon the poor labour conditions existing in the Sheffield cutlery and edge tool trade. I have just shown that more than one quarter of the men get less than 25/- a week. This cannot be attributed to trade depression as nearly all branches have more orders

than they can cope with.

The real reason is that the cost of manufacture has increased considerably and the manufacturers have been unable to agree to joint action for the purpose of raising the price of their cutting. It is said that manufacturers have to write off 15% depreciation for the dust extracting plant required by the government. The government's action in raising the wages in the sweated cardboard box industry has led to an increase of 15% in the price of the boxes. Local rates have risen, and the growing practice of dealers to use the parcel post has led to a gradual reduction in the average value of their orders, with the result that office and warehouse

expenses have risen without a corresponding increase in the turnover.

An attempt is now being made by the principal manufacturers to raise the price of cutlery 5%, and we may hope that a further increase in the near future will lead to a substantial improvement both in profits and in wages.

A study of the wage figure of the chief British industries clearly shows that the wages are highest in those industries in which strong trade unionism exists. Now I do not say that lack of a means of combined action is the sole cause of the low wages in certain of the handware industries. There is hardly ever a strong trade

union influence in those trades where many women are employed, but it is that very fact of large female employment, which is the chief cause of the low standard of wages now existing. It is chiefly on account of the large proportion of female labour employed that the standard of wages is low in the needle, screw, and lock industries.

It seems difficult to fully explain why the wages of male labour should be comparatively low in those factories in which women also are working. Two reasons however may be suggested. In a factory where men and women are employed the men are ready to accept fairly low wages rather

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than run the risk of having their places taken by women. In other factories however, where the nature of the work does not allow of the employment of women, the men have no such fear, and they can demand a reasonable wage, often with the influence of a strong trade union at their back. The second ^{suggestion} is that there may be a real difference in value between the work performed by the men in factories where there are no women and that done by men whose places might easily be taken by women.

I wish now to refer to two tendencies which are strengthening in certain trades, and which go hand in hand with the growing

employment of women. The first is the increasing importance of piecework rates, and the second is the lessening of the number of hours worked per week. These two tendencies are to some extent interdependent. The fixing of wage on a piecework basis leads up to the speeding up of the rate of output from 30-50%.

I have said that the employment of women increases with the adoption of more purely mechanical processes. The same cause explains the growing use of piecework rates. Although more than half the wages paid in English industries to day are calculated on a time basis, yet it is becoming general to

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substitute piecework rates whenever possible. The division of labour and the use of machinery extends the possibility of the adoption of piecework rates, because it makes it easier to calculate the exact amount of work done by each operative. It is chiefly the stress of foreign competition and the demand at home for higher wages that is causing manufacturers to prefer piecework rates. The operative thinks he will be able to earn more and the employer expects to get more for his money.

With regard to these two systems of wage payment it may be remarked that they are not entirely distinct: time rates

Have a piecework basis, and piece rates have a time basis. A manufacturer will not pay his men the time wages unless they perform a more or less clearly defined amount of work, and, on the other hand, in introducing a piece rate, he will arrange a standard whereby the average workman working under average conditions shall be able to earn the general time rate. For the purpose of this arrangement the manufacturer estimates an increase in the speed of working under piece rates of $\frac{1}{3}$ or $\frac{1}{2}$.

Many arguments have been advanced for and against the adoption of piecework rates. I cannot deal with them here, but I will just mention two.

One manufacturer refuses to adopt piecework rates for men working valuable machinery, because, he says, in their hurry to get a lot of work done, they are likely to cause serious damage to the machines. Another employer puts his faith in piecework rates, because, he says, the workmen then make the most of expensive machinery.

I should think it doubtful whether, as is sometimes held, workmen under piece rates are likely to work at a speed injurious to their health. Such a tendency is sometimes seen when piece rates are first introduced, but the operative soon settles down to a regular speed compatible with his powers of endurance.

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The speeding up of work caused by the employment of piecework rates, and the tendency to increase the proportion of female labour have alike assisted in lessening the hours of work. On the one hand, the manufacturer finds that he can maintain his output over a shorter working week, and on the other, he finds that the quality of female labour rapidly deteriorates towards the end of a long period of continuous application. Perhaps half the accidents to operatives and to machinery caused by negligence occur during the last hours of the morning and afternoon shifts.

The average working week in the metal and engineering trades is still as long as 53.2 hrs., but in

certain branches, especially in those in which women are employed in large numbers, the working week is considerably shorter.

The following figures give the average number of hours worked per week in the chief hardware trades :-

<u>Trade</u>	<u>Hrs. per Week.</u>
Wire	54.8
Nails	53
Screws	
Edge. tools	
Brassware	
Needles	50
Fishhooks	
Chain	46.8
Anchor	

The English hardware trades are to day generally prosperous

and we may hope for an early
improvement in the rates of wages
in some of the more poorly paid
branches.

See back cover.

America.

The American hardware trades are in the main similar to those of England, but they are carried on under different conditions. A fuller use is made of machinery in America and the production is carried on on a bigger scale, often under a system of standardisation. By spreading standing charges over a larger output the American manufacturer is enabled to effect an economy. Then again the American manufacturer has an advantage over his British rival in the greater cheapness of his raw material and in his comparative freedom from trades union pressure. The average number of hours in the English working week

in these trades is, as I have said, 53.2; in America a 55 hour week is general. Piecework rates are paid in nearly all the mechanical operations, and the workmen earn up to $1\frac{1}{3}$ on hour. Women are employed for the lighter operations and they are paid better relative wages than in England, \$8 a week being often earned.

In many big American concerns there is a standing agreement between the masters and the men, that the latter will submit to their employers any inventions which they may make. In all cases suggestions from the workpeople are welcomed and carefully considered. Such a system might be more fully developed in England with advantage.

The American working man has

an advantage over the British workman in the splendid system of continuation schools organised for his benefit.

The courses are generally held in the evenings and are designed to give a knowledge of and practical training in scientific and technical work. These schools are thoroughly appreciated by the men, and in some cases employers stipulate that certain classes of their employes must attend a ~~certain~~ number of hours each week.

It has been said that the speeding up of work in American factories and the strain of a ten hour day have an injurious effect upon the health of the American workman, and that an operative becomes a physical wreck just at the age at which an English workman is at his

best. There seem only very slight grounds for such an opinion. It has been estimated that the average age at which the American workman dies is 56.4, while the English operative lives two years longer. Now for this difference is due to extra industrial strain it is difficult to say.

The organisation of the cutlery trade shows improvements on that of Sheffield in several directions. There is no outworking for the American factories and so valuable time is not wasted, as is often the case in the Sheffield industry.

Then again the Americans effect a big saving of time by keeping in the works a large stock of the necessary materials, & by taking care that their skilled workers are kept

supplied by unskilled labour.

The most skilled work in the trade is done by men from Sheffield or Solingen, and the wages they earn are 100% better than they could earn at home. The cost of living is perhaps 50% higher than in England.

The American cutlery trade, being of recent establishment, has been able to copy the good methods and avoid the faults of both English and continental practice.

America is predominant in the manufacture of machines and implements which embody in their construction both wood and metal. Carriages, furniture, agricultural implements, clocks, typewriters, sewing machines, and vacuum cleaners are all the products of separate

and extensive industries. In the class of hardware proper Americans have made a name for themselves in the manufacture of saws and axes - bolts and nuts, shovels and other heavy edged tools, being almost equally important.

One of the chief features of American manufacturing practice is the cutting down to a minimum of the amount of material used. Comparing American hardware with English this characteristic is outstanding, but there is ample proof that the greater lightness is not obtained by the sacrifice of either strength or durability.

The advanced stage to which the employment of machinery has been pushed is testified by the fact that

in many factories one man looks after three or four machines at the same time. Indeed in one big nail works one man with two helpers looks after twelve nail machines simultaneously.

The unskilled work is often done by negroes. In the wire industry it is estimated that 50% of the labour is coloured. The wages average about a dollar a day.

Of late years there has been a rapid increase in the cost of labour and of material. During 1910 there was a general increase in wages and a lessening of the number of hours, while the price of steel and other materials increased. In some branches of American industry an 8 hr. day is being aimed at. The average wages paid in the hardware industries vary

from 36-48/- for partly skilled work and from 64-80/- for skilled work.

The metal industries of America are distributed throughout the Eastern States, from Boston in the North, to Birmingham in Alabama in the South, and to Chicago in the North. West. A tendency has been growing of late years for finished hardware industries to be set up around Pittsburg where fuel and materials are cheap and where there is a large market among the industrial population of the district.

Germany.

In the German metal trades similar tendencies are at work to those referred to in speaking of American industry. Although the hardware industries have been growing rapidly in recent years the stress of competition is being keenly felt owing to a rise in the cost of labour and to increased cost of materials.

Other changes however are taking place which are more favourable to German manufacture. The perfection of machinery and the extension of its use, together with better methods of organisation are tending to greater economy of production. The use of gases and oils as fuel is being developed

and the saving of the expense of stoking is a considerable item.

The increased cost of labour has led German manufacturers to employ a larger proportion of female workers. Since 1905 the amount of women's labour in Germany has increased by 30% over and above the increase caused by the growth of population. The wages paid for female labour are lower even than in England - 90% of the women earning less than 15/- a week. The slight increase in the wages paid to men is not in proportion to the increase in the cost of living.

The system of compulsory insurance imposes a burden of £40,000,000 annually on German

industry, while under the new scheme a further £6,000,000 will be raised. This means a tax on the manufacturer equal to about 5% of the wages paid.

There has been a growing feeling of late years in German commercial circles against the system of syndicates and conventions. Two syndicates in the bar iron and the wire industries indeed came to grief last year. The reason of this feeling against the system is that it puts the German manufacturers of finished goods at a disadvantage with regard to foreign competitors. Manufacturers of semi-manufactured goods, such as iron bars, are protected by the German tariff. They may incline

to over production and get rid of their surplus at a low price abroad - their losses on export being made good to them by their syndicates - while at the same time they are charging high prices in the home market. The finishing industries not only have to pay a high price for materials at home, but they are ousted from the foreign markets by competitors enabled to produce finished goods from materials obtained from Germany at greatly reduced prices.

In spite of disadvantages however the German hardware and metal trades are making good progress and Germany is proud to see her own machines

and tools taking the place of
American in her factories and
workshops. At the present time
Germany's import of iron goods
and machinery amounts only to
6% of her ~~own~~ production.

The Merchunting of Handware.

By the 'merchunting' of handware I wish to include all those processes of handware distribution which are carried on only in wholesale quantities and by persons other than the manufacturers of the commodities distributed. This definition excludes the direct trading of manufacturers and the retail trading of ~~the~~ shopkeepers and contractors.

It must not be supposed that the merchunting of handware is wholly in the hands of "merchants," as this latter term has of late been applied only to those wholesale dealers whose trade is chiefly with foreign countries. In this island handware centre the term "factor" has come to be used for the ordinary wholesale middleman engaged in a home trade. In America such a wholesale trader is generally known as a jobber.

These merchants, factors, and jobbers form a class of commercial middlemen whose business it is to ^{buy} ~~sell~~ goods on the most favourable terms and sell them at a profit, such profit being their remuneration for the services they render to the manufacturers on the one hand and to the retailer or consumer on the other.

The old-fashioned hardware merchant was engaged in a simple straightforward business in which very little risk had to be run: modern business conditions now call for different methods and many old forms are finding it difficult to adapt themselves to the requirements of new markets. The merchant of twenty or thirty years ago had a small office and a small warehouse. His custom was to ^{send out travellers, and,} ~~wait in person~~ ~~expecting for the orders of his~~ ~~customers,~~ and, on receiving ^{the orders of his} ~~them,~~ to collect the various items from the different manufacturers, pack them up together, and send them off to their respective destinations.

The merchant of to-day is met by renewed competition and he must be ready to act on his own initiative. He must keep some stock of the articles in very general demand and ~~be~~ of those which, perhaps being foreign lines, could not be ^{procured} ~~manufactured~~ at short notice. The trade of the general hardware merchant covers however such a large variety of articles that it would be impossible to keep a stock large enough to cover all possible demands.

Although it is difficult to draw a sharp distinction between merchants who keep a warehouse stock and merchants who do not, yet there has been seen in B'ham

of late years a distinct tendency towards the increase of the merchants stock and the elimination of small firms keeping to the old methods of only getting in goods to fill an order or orders previously received. During the last few years a number of old established firms engaged in the hardware trade have ceased business, and have been merged into a big hardware house whose policy it is to keep a large stock.

The old method of doing a merchants' business without a warehouse stock was a perfectly sound method. There was no risk incurred of being left with a stock of depreciated or worthless commodities and there were few expenses of advertising to be met.

Under these conditions the merchant earned and justified his profits by the exercise of his judgment in executing orders, and of his knowledge of the most reliable manufacturers, and by arranging for the collection and transportation of the various items of the orders in the most economical manner. Instead of the buyer having to pay minimum freight amounts on a large number of small parcels the merchant puts them together and so gives the buyer the advantage of the lowest "wholesale" terms by sea or rail.

Old methods of doing business are giving place to new, and in the hardware trade to day we see general tendencies to increase the size of the businesses and to eliminate the small old-fashioned firms. The merchant of to day has more extended functions - he must keep some stock of goods, especially of foreign lines in general demand; he must advertise on a considerable scale and he must keep a staff of competent travellers; if engaged in foreign trade he must study in detail the requirements of each country and he must persuade the manufacturers to make the goods accordingly; and further, he must always be ready to expend capital on a new commodity so that by pushing it he may obtain the first and the best profits. This extension of the scope of the merchant's or factor's business has made the employment of a considerable capital necessary for a successful undertaking, and it has also added a larger element of risk to the merchandising of hardware.

The warehouse businesses in the Lancs. cotton trade have similarly to run the risk of over-estimating the future demand; but in this case the

danger is not so great as in that of a hardware ~~merchant~~ business, because the cotton merchant only keeps a stock of a few well-known and staple lines, whereas the hardware merchant has to keep a far more varied stock and one much more subject to fluctuation in demand. The cotton merchant may have a surplus of goods left on his hands at the end of a certain period but the hardware merchant may find himself in possession of a stock for which not only is there no present demand, but for which there are no prospects of a demand being made in the future. Best profits can be made on new commodities which are just coming into general use, and it is the temptation to secure the first profits which may lead a hardware merchant to buy in a large stock of a commodity which subsequently entirely fails to "catch on" with the buying public.

The advantages of keeping a stock are: (i) The merchant is enabled to meet competition by executing his orders promptly and without having to wait for each item to be specially delivered from the manufacturers.

(ii) The merchant is in a better position to secure a large share in the profits on a new commodity when he can deliver promptly from stock.

(iii) In maintaining his stock the merchant can have large regular

dealings with the manufacturers and so be in a position to secure the ~~very~~ best trade terms.

The tendency, so general in the industrial world, towards the increase in the size of businesses and the decrease in their number is seen also in the hardware trade: ^{the small} ~~the last twenty years the number of hardware merchants in Boston~~ ^{who could only carry of this business or that old type of disapp'g.} has been steadily decreasing and at the present time there only remain about six or seven really successful businesses. ^{The big firms} ~~these~~ ^{are} chiefly engaged in the foreign trade, and I attribute this ~~fact~~ to the fact that the functions of a merchant become more important and less easily able to be taken over by the manufacturer or consumer as the trade goes further afield. The small hardware businesses still remaining and carried on in the old-fashioned way are approaching in many cases to the position of "marginal products" their profits are diminishing and their position is becoming insecure.

Scarcely has been made all over the world against the general increase in the cost of living and popular indignation has been aroused in some quarters against the "unjustifiable" profits, as they are called, of the commercial middleman. Some say that the

ideal economic method of distributing hardware is for the manufacturer to send it direct to the consumer. Even if such a system of direct trading were possible and the middlemen, factors and retailers, were eliminated it still remains to be proved that the cost of hardware so distributed would be less.

To what extent can the middleman - in this case the wholesale hardware merchant - be eliminated? To answer this question we must consider what services the merchant renders to producer and consumer, and to what extent it is possible and expedient for the producer or consumer to perform these services for himself. Here are some of a merchant's functions:

(i) The merchant must use his judgment and experience in getting his goods from those manufacturers who can be best relied upon to supply goods which shall give satisfaction to the consumer.

(ii) The merchant must be in a position to give his customers fairly long credits. Knowing something of the financial position of each customer he is able to give longer credits than a manufacturer could safely give. From the manufacturer's point of view

it would often be impossible to engage in direct trading owing to the difficulty of financing his sales. This applies with special force to the foreign trade - the manufacturer cannot wait for his money, so he sells for cash to the home ~~factor~~ ^{on} merchant. Lock manufacturers are often in business with a very small capital, and in Bham. it is often the custom for the locks to be brought in on Friday night and paid for by the merchants in cash over the counter. Months ^{may} ~~will~~ pass before the merchant gets any return on his money.

On the one hand the retailer or consumer cannot pay cash, and on the other the manufacturer cannot wait for his money. Under such conditions the elimination of the merchant or factor would seem difficult.

(iii) The chief business of the merchant is to assemble handware in large quantities at central points ready for quick shipments. In this way he saves his customers considerable trouble and expense, as otherwise they would have to collect each item separately from the different manufacturers and pay minimum freight rates on the small items.

The retailer finds from month to month that he must replenish his stock with small quantities of a considerable number of different commodities. In sending his order to a merchant he is able to have the various articles collected and packed in the merchant's warehouse whence they can be despatched in one consignment at a cost considerably less than that which the retailer would have to pay in getting the small quantities required from manufacturers in all parts of the country.

(iv) It is the duty of a merchant to know the best method of transport from place to place, and from country to country. He must know all about freight charges and classification and be well versed in the conditions of transport by sea and rail and in the technical details of insurance and the requirements of customs houses. His services with reference to these points are a great boon to the small importer.

(v) The merchant's business is a book business and the retailer can be sure of getting prompt attention for orders so small that the ordinary manufacturers would find it extremely inconvenient to deal with them separately. The retailer has one regular monthly

account with the merchant instead of having accounts with twenty or thirty manufacturers whose goods he requires at very irregular intervals.

(vi) It is the business of a merchant to supply the manufacturers with information concerning the requirements of his market, and to suggest possibilities ^{from time to time} for the introduction of a new commodity or a fresh design. The merchant must be ready to investigate any new article manufactured, and, if it proves satisfactory, to introduce it in his market and take steps to explain its use to possible purchasers. The introduction of a new article by a merchant necessitates a considerable capital outlay in advertising and stocking, but it may also mean for him the first and best profits on the sales. In this connection the middleman performs valuable services for the manufacturer, and indeed in many cases the inventor ~~and~~ ^{or} manufacturer of a new commodity might find it impossible to place his invention on the market himself owing to the relatively large amount of capital outlay necessary.

Here then are some of the more important functions which the hardware merchant or factor

performs for the manufacturer on the one hand and for the retailer on the other. The majority of the functions mentioned become more important and less easy to perform as the distance between the manufacturer and the consumer becomes greater. To this fact I attribute the general superiority of the position of the export hardware merchant ~~over~~ as compared with that of the home factor.

Suppose the class of wholesale middlemen is eliminated and the manufacturer arranges to sell direct to the retailer - how will the manufacturer be affected? The manufacturer will have to incur increased expenses for advertising and for travellers; he will have to provide increased warehouse and shipping facilities; he will have to employ a larger office force; and he will have to provide increased capital for the extension of credits and make allowance for more loss in the large number of small credits which he has little chance of studying from a distance. Under these conditions it is difficult to see how the cost to the retailer could be decreased if the wholesale middlemen were eliminated.

The manufacturer who

tries a system of direct trading finds that trouble and expense are incurred in a host of new directions and he is generally content to let the merchant do the work for him in return for a relatively small percentage profit. In this connection it is interesting to note the opinion of an American banker - he says: "I believe that there are but few lines of business where the margin of profit is so small, compared with the risk, the capital invested etc., as with the jobbers of not only hardware but other commodities. It is generally recognised that a profit of from 2-5% on the gross sales represents the annual showing."

How would the elimination of the jobber affect the retailer? The manufacturer could not afford to send travellers to make frequent calls on the retailers in all districts, and so the retailer would miss the information he has been accustomed to receive from travellers as to changes in prices, market conditions and tendencies, etc. The retailer would be obliged to purchase in much larger quantities and so run the risk of having an excessive stock of certain lines and not sufficient stock of others. His

losses on unsold merchandise and depreciation of worthless stock would absorb practically all the profits he had been able to secure. Then again the ordinary retailer would probably be astonished at the amount of extra trouble he would incur in writing to the different manufacturers for the various articles he requires. As an illustration of this - an ordinary normal sized order sent by a retailer to a wholesale factor was found to contain articles which had to be collected from no less than 26 different manufacturers situated in different parts of the country. If the retailer bought direct this would mean 26 different order letters, 26 different transportation charges, 26 cartages, and 26 different letters and checks in payment of bills. The retailer would find that these items would add considerably to his purchase price.

I have tried to show some of the many difficulties with which the manufacturer and retailer would have to contend in dispensing with the services of the wholesale factor. But it must not be supposed that these arguments apply with equal force over the whole field of

the Hardware trade. There are certain classes of commodities simple, well known, easily tested and handled, and in general demand which the retailer may find it comparatively easy to get direct from a manufacturer in his district. When the article is staple, ^{easily described} easily measured, packed, and transported the function of the middleman can be taken over with comparative ease by the manufacturer and the retailer. Such things as fencing wire, wire netting, buckets, plumbers fittings of standard sizes, and a host of other things are often distributed to the retailers under a system of direct trading.

Perhaps the possibilities of direct trading depend more upon the conditions and relations of the manufacturer and the retailer than upon the character of the goods themselves. Where the retailer can get a connection with a manufacturer and keep in close touch with him, where the distance between the two parties is small and the transport easy then there are possibilities of dealing with the manufacturer direct.

So it is that direct

trading has assumed such large proportions in this Midland hardware district where manufacturers and retailers are collected together in a small area. Pointing to the liabilities of ironmongers as made known ~~at~~ ⁱⁿ a number of bankruptcy cases, a B'ham. merchant has suggested that the Midland retailer gets 75% of his goods direct from the manufacturers.

Manufacturers may assail the position of the factor from two points.

(i) They may employ men to work for them as travellers on a small commission. These commission men generally work for a number of different manufacturers and they make calls on the local retailers to get orders for their various lines. The method is cheap, and satisfactory so long as the agents can be relied upon or controlled.

(ii) Manufacturers may be jobbers themselves. In some lines manufacturers may list and sell large quantities of stuff which is not of their own manufacture. In the English cutlery trade it is said that very few manufacturers

lists are wholly devoted to goods of their own manufacture. This system of trading seems to be only very slightly developed in America.

In the States however another method of handware trading has of late years gained rapidly in favour in some quarters. This is the method of catalogue or mail order houses, and it deals a blow at jobber and retailer alike. A large capitalist firm gets together a huge warehouse stock of goods bought direct from the manufacturers. It then issues broadcast to the buying public thousands of catalogues of goods ready for delivery in retail quantities from stock.

It is held by some that the goods furnished are inferior in quality, that the service rendered is bad, and that the methods are unsatisfactory. It is however useless to base an opinion on a few isolated cases, but we may note that in any case the consumer loses the undoubted advantage of being able to examine and personally select his requirements.

The question which is agitating the minds of jobbers and retailers in America is whether or not the Government will enter upon a proposed scheme of parcels post and assume the expense and deficit connected with the system. It is held that the proposed extension of the post parcel limit to 11 lbs. & a corresponding increase in size will give an unfair advantage to the mail order houses, and that it will amount to a state subsidy for this branch of trading. The fate of a large number of retail stores in the States depends upon the action of the Government.

Another experiment has just recently been started in America which is to offer the advantages of the catalogue house together with the possibility for the customer to choose his goods in the ordinary store. A large jobbing concern has increased its capital stock, forming a new organization whose purpose is to erect an immense building in which will be assembled practically a jobber's stock, and then to operate a chain of retail hardware stores in

different parts of the State. These retail stores are a part of the organization and the managers of them take stock in the big game corporation. We have still to find how this experiment will turn out.

I will conclude with a note about another method of hardware trading - that of the "Commission Houses". The system is simple and it ensures a regular return for the merchant on all his orders, as it consists of in sending to the customer the manufacturer's invoice on invoices together with an additional $2\frac{1}{2}$ or 5% for the merchant's commission. In London there are a number of hardware houses who have found the commission system generally satisfactory, but it is curious to note that it is regarded with disfavour by customers in the East, as they prefer to ^{buy at a laid down price, that is,} ~~pay for the goods~~ ^{including all charges for packing, rail, freight, and insurance.} ~~reference to commission.~~

The position of the merchant is being assailed by a growing system of direct trading, and, in America, by catalogue houses. Yet these evils, as we call them,

cover by no means the whole
field of the hardware trade,
and it is difficult to imagine
a time when there will be no
place in our economic system
for the factor and the merchant.

Let manufacturers' & ft. of prices
be understood & common sense.

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of Hardware Dealers